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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,413	01/16/2002	Charles Eric Pearce	PGI6044P0321US	6108

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER  
500 W. MADISON STREET  
SUITE 3800  
CHICAGO, IL 60661

EXAMINER
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TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/050,413	<b>Applicant(s)</b> PEARCE ET AL.	
	<b>Examiner</b> Norca L. Torres-Velazquez	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5, 6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/02/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed December 21, 2004 have been fully considered but they are not persuasive.

a. Applicants argue that the Kirayoglu reference fails to teach applicant's filter media as claimed and refer to Examples 4 and Table IV of Kirayoglu arguing that it fails to exhibit the specified, normalized machine-direction and cross-direction strip tensile characteristics set forth in the claims.

Applicant's arguments with regards to the Kirayoglu are noted, however, the arguments are taking the teachings of Kirayoglu in a vacuum instead of the combination of Kirayoglu in view of Haid et al. as stated in previous action. It is noted that the Kirayoglu reference fails to teach heat setting, which is provided by the Haid et al. reference with the purpose of increasing the fabric, durability and abrasion resistance. It is noted that both reference use the same type of polyester staple fibers, therefore, the enhanced properties produced by the heat-setting treatment taught by Haid et al. would be recognized in the art of Kirayoglu. Therefore, it is the Examiner's interpretation that the application of such treatment to the fabric of Kirayoglu will inherently provide the presently claimed properties to the fabric.

b. Applicants further argue that Kirayoglu precludes heat-treatment since the reference specifically requires that the disclosed fabric has not been subjected to a shrinking operation.

It is noted that the heat treatment taught by Haid et al. is a heat setting treatment in which the fabric is heated to a temperature above the melting point of the fusible fibers to remelt the fusible fibers and increase the fabric durability and abrasion resistance. The Haid et al. reference also uses polyester staple fibers. Haid et al. does not suggest that the heat-setting treatment will produce shrinking of the fabric but melting the polyester fusible fibers for bonding purposes. (Refer to Col. 4, lines 36-42 and Col. 3, lines 21-23) Applicants have not shown evidence that the heat treatment of Haid et al. would shrink the fabric of the Kirayoglu reference. Although the combination of Kirayoglu and Haid et al. does not explicitly teach the claimed Mullen burst strength, the MD and CD shrinkage, the MD and CD strip tensile strength of the fabric it is reasonable to presume that these properties are inherent to the product of Kirayoglu in view of the teachings of Haid et al. Support for said presumption is found in the use of like materials (i.e. same fabric construction, same polyester staple fibers, same basis weight and treated by a heat setting process). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of Mullen burst strength, the MD and CD shrinkage, the MD and CD strip tensile strength of the fabric would obviously have been present one the fabric of Kirayoglu treated with the heat-setting process of Haid et al. is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80

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2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over KIRAYOGLU (US 4,556,601) in view of HAID et al. (US 5,240,764).

KIRAYOGLU discloses a heavyweight, nonapertured, nonwoven fabric of hydraulically entangled synthetic organic staple fibers with a unit weight of 200 to 850 g/m<sup>2</sup> (6 to 25 oz/yd<sup>2</sup>). (Abstract, and Column 2, lines 25-28) The reference teaches the use of staple fibers of poly (ethylene terephthalate). (Column 2, lines 47-50) The reference further teaches that such heavyweight fabrics are desired in uses such as heavy-duty gas filtration. (Column 1, lines 55-56) However, KIRAYOGLU is silent to heat-treat the filter media.

HAID et al. discloses a process to make a spunlaced nonwoven fabric that includes hydraulically needling the fibers of the web to entangle them in a three-dimensional state and teaches heat setting the fibers to stabilize the web surface and increase the web durability and abrasion resistance. (Column 2, lines 6-32) The reference also teaches using polyester staple fibers. (Column 3, lines 4-15) HAID et al. teaches that the heat treatment involves heating the fibers to a temperature above their melting point to increase the fabric durability and abrasion resistance. (Col. 4, lines 36-42)

Since both references are directed to hydroentangled nonwoven webs, the purpose disclosed by HAID et al. would have been recognized in the pertinent art of KIRAYOGLU.

Although the combination of Kirayoglu and Haid et al. does not explicitly teach the claimed Mullen burst strength, the MD and CD shrinkage, the MD and CD strip tensile strength of the fabric it is reasonable to presume that these properties are inherent to the product of Kirayoglu in view of the teachings of Haid et al. Support for said presumption is found in the use of like materials (i.e. same fabric construction, same polyester staple fibers, same basis weight and treated by a heat setting process). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of Mullen burst strength, the MD and CD shrinkage, the MD and CD strip tensile strength of the fabric would obviously have been present one the fabric of Kirayoglu treated with the heat-setting process of Haid et al. is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the nonwoven fabric of KIRAYOGLU and provide with a heat-treatment with the motivation of increasing the web durability and abrasion resistance as disclosed by HAID (Column 2, lines 6-32).

### ***Double Patenting***

3. Claims 5-6 and 8-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4-9 of copending Application No. 10/778,661. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a filter media with the same

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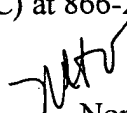
structural limitations and are made by similar processes. Therefore, they must possess the same physical properties.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Norca L. Torres-Velazquez  
Examiner  
Art Unit 1771

April 17, 2005